

Notes 11/19 - Writing Equations of Linear Functions

- If you want to write an equation in slope-intercept form ($y = mx + b$), you need to know
 - slope (m)
 - y-intercept (b)

Ex 1: Find the equation from the table

x	y
-1	4
0	6
1	8

+1 < > +2

y-intercept when $x = 0$
 $b = 6$

$$m = \frac{\Delta y}{\Delta x} = \frac{2}{1} = 2$$

$$\boxed{y = 2x + 6}$$

Ex 2: Write the equation of the line with a slope of 3 through the point (2, 0).
x, y

$$y = mx + b$$

$$y = 3x + b$$

Plug in
x and y
from point

$$\rightarrow 0 = 3(2) + b$$

$$\begin{array}{r} 0 = 6 + b \\ -6 \quad -6 \\ \hline -6 = b \end{array}$$

$$\boxed{y = 3x - 6}$$